<u>**Sprint 4 Report**</u>

Sprint duration: 26 February – 4 March 2025

Individual Developer Report

Developer	Individual Report

Abhinav Jha	- Worked on classes: TileClicked.java, Player.java; CardClicked.java; GameState.java; Unit.java
	- Completed user stories as planned in this sprint:
	  o 42 – Human player should not see AI hand
	  o 48 – AI logic to use spells
	  o 49 – Remove highlights for AI units
	- Pending user stories and resolution plan: No
	- Completed user stories that are not planned in this sprint:
	  o 44 – End turn for AI automatically
	- Fixed bugs -
	  o Units were not able to move. Root cause - start tile was assigned as clicked tile every time tileClicked.java was being called.

He Sun	- Worked on classes:
	- Completed user stories as planned in this sprint:
	  o 16-Move then attack
	  o 6-See highlighted tiles while placing units
	- Pending user stories and resolution plan:
	  o Movement re-attack is a method of movement and attack used to optimize player operations. When a unit moves, it needs to determine whether it can reach the target position and ensure that no other units block the path. However, in the implementation process, the path check is not accurate for units whose movement distance is equal to 3 or 4,
	  o Conventional straight-line path detection cannot be directly used for L-shaped movements because the component does not move in a straight line. Ultimately, the isPathBlocked method is used to check the path of the component movement, which has been optimized so that the component can pass through other components without being blocked.
	- Completed user stories that are not planned in this sprint: 14 – Highlight enemy in range

Paul Smith	- Worked on classes: GameState.java, Unit.java, TileClicked.java
	- Completed user stories as planned in this sprint:
	  o 26 – Unit Ability: Deathwatch
	  o 27 – Unit Ability: Flying
	- Pending user stories and resolution plan: 26 – Unit Ability: Deathwatch: Card description document was vague. Resolved this via clarification during Labs with Teaching Assistants.
	- Completed user stories that are not planned in this sprint: 27 – Unit Ability: Flying

Qirui Guo	- Worked on classes: Unit.java - Completed user stories as planned in this sprint:

	o 20 – counterattack - Pending user stories and resolution plan: 20 – counterattack: create a new method which is similar to attack to implement this function. And call this method in the method of attack. - Completed user stories that are not planned in this sprint: 14-Highlight enemy in range

Phuong Uyen Tran	- Worked on classes: Unit.java, Player.java, GameState.java
	- Completed user stories as planned in this sprint:
	    o 38 – Token
	    o 50 – Remove notifications for AI
	    o 41 – Fix cardDeck to be 20 cards (use 2 of each card)
	- Pending user stories and resolution plan: No
	- Completed user stories that are not planned in this sprint: No

Sprint 4 Review

US Name	SP	Priority	Developer	Status	Remark
Token	2	Should have	Uyen	Complete	
User should not be able to see AI hand	1	Should have	Abhinav	Completed	Newly added
Remove highlights for ai units	1	Should have	Abhinav	Completed	Newly added
Remove notifications for AI	1	Should have	Uyen	Completed	Newly added
Move then attack	3	Could have	He Sun	Complete	
Counterattack	2	Could have	qirui	Complete	
Unit Ability: Deathwatch	2	Could have	Paul	Complete	
Unit Ability: Flying	2	Could have	Paul	Complete	
See highlighted tiles while placing units	1	Could have	He Sun	Completed	
Fix cardDeck to be 20 cards (use 2 of each card)	1	Could have	Uyen	Completed	Newly added
Use card in each turn (not compulsory) - AI	2	Should have	Qirui	Completed	Newly added
Use spells	2	Could have	Abhinav	Complete	Newly added
End turn automatically - AI	2	Must have	Abhinav	Completed	From Sprint 5
Highlight enemy in range	2	Would like to have	He Sun	Complete	From Sprint 5

In Sprint 4, we completed 4 extra SPs from Sprint 5.

Estimated SPs = 20, Actual SPs = 24

Iteration Hit Rate = 24/20 = 120%

Sprint 4 Conclusion:

- Sprint 4 was completed on track.
- We completed 2 user stories from Sprint 5, so we updated Sprint 5 to remove the completed user stories.
- We identified 7 new user stories to be added to Sprint 5 and updated Sprint 5 plan to reflect these additions:
    - AI move (not compulsory in each turn)
    - AI attack (not compulsory in each turn)
    - AI turn logic (which action to take in its turn: move/attack/use spell/ card)
    - Horn of the forsaken
    - Wraithling swarm
    - Winning condition: if cardDeck and cardsOnHand are empty, you lose
    - Unit should not move and attack on the turn they are summoned.